

Docket No.: 0879-0277P
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Seiichi MATSUI

Application No.: 09/662,323

Confirmation No.: 1512

Filed: September 14, 2000

Art Unit: 2612

For: IMAGING APPARATUS, SOLID IMAGING
DEVICE AND DRIVING METHOD FOR
SOLID IMAGING DEVICE

Examiner: K.L. JERABEK

REQUEST FOR PRE-APPEAL BRIEF CONFERENCE

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed concurrently with a Notice of Appeal.

The review is being requested for the reasons set forth on the attached five (5) Sheets.

The Examiner has made clear errors in interpreting and applying the appropriate tests and applying the prior art in rejecting claims 4-7, 9-12, 16-19, and 21-24 under 35 U.S.C. § 103(a) as being unpatentable over *Yamaguchi et al.* (USP 6,342,921) in view of *Harada et al.* (USP 6,108,036); and rejecting claims 8 and 20 under 35 U.S.C. § 103(a) as being unpatentable over *Yamaguchi et al.* in view of *Harada et al.* and further in view of *Dischert* (USP 6,040,869).

**The Examiner has Failed to Establish Prima Facie Obviousness
by Failing to Provide References that Teach or Suggest All of the Claim Elements**

The Examiner has made clear error in determining certain claim elements are taught by taking an unduly broad interpretation of the teachings of the prior art. With regard to claim 4, the Examiner asserts that the combination of the teachings of *Yamaguchi et al* and *Harada et al.* teaches all of the elements as set forth in the claim. Applicants maintain that these teachings are insufficient to render the claim obvious.

In order to sustain a rejection under 35 U.S.C. § 103(a), it is respectfully submitted that the Examiner must meet his burden to establish a *prima facie* case. “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 4 recites, *inter alia*, a signal processing device that produces the image signals by producing the pixel information of one line from the pixel information of each pair of two adjoining lines read from the solid imaging device when the image signals with low definition are produced.

In support of the Examiner's rejection of claim 1, the Examiner admits that *Yamaguchi et al.* fails to teach or suggest this claim element. The Examiner relies on the teachings of *Harada* to cure the deficiencies of the teachings of *Yamaguchi et al.* citing to col. 34, lines 23-41. However, Applicant disagrees that these teachings, when combined with the teachings of *Yamaguchi et al.*, teach the claimed invention.

Yamaguchi et al. teaches reading out two lines of pixels at a time in order to ensure that one energized or charged row of pixels is read out when the thinning takes place without complicating the signal processing circuit. *Harada et al.* teaches processing one light-receiving signal with another light-receiving signal. However, in combining the *Harada et al.* with the teachings of *Yamaguchi et al.*, in *Yamaguchi et al.*, one of the two lines read out is not a light receiving signal as one of the rows of pixels is not charged. As such, in combining the teachings of the two references, the resultant device would produce pixel information of one line from the pixel information of **non-adjoining** lines. As such, Applicant maintains that the cited references, either alone or in combination, fail to teach or suggest all of the claim elements. Applicant maintains that claim 1 is not obvious over the references as cited.

In addition, assuming the combination of the references as purported by the Examiner, pixel information is produced from one line of each pair of non-adjoining lines. As only pairs of lines of pixel information are read out, with lines between the pairs being decimated, the lines that are combined are not lines that are spatially close to each other. As such, there is no correlation in the pixel information from the two lines of the non-adjoining lines. When the two lines of non-adjoining lines are produced, where the non-adjoining lines include color that is not correlated with each other, this results in untrue color in the produced pixel information.

However, as the present invention provides producing the pixel information of one line from the pixel information of each pair of two adjoining lines read from the solid imaging device when the image signals with low definition are produced, true color is produced because the information.

For all of the reasons noted above, Applicant maintains that the cited references, either alone or in combination, fail to teach or suggest all of the claim elements. It is respectfully submitted that claim 4 is not obvious over the references as cited.

The Examiner has Failed to Establish Prima Facie Obviousness
As There is No Motivation to Combine the References

The Examiner has made clear error in determining there is sufficient motivation to combine the references to render the pending claims obvious.

In order for a *prima facie* case to exist, the prior art must suggest the desirability of the claimed invention, providing motivation to make the combination proposed by the Examiner. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ 2d1453, 1457-58 (Fed.Cir. 1998). The level of skill in the art cannot be relied upon to provide this suggestion to combine the references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

In support of the Examiner's rejection of claim 4, the Examiner asserts that one skilled in the art would have been motivated to combine the teachings of *Harada et al.* with the teachings of *Yamaguchi et al.* in order to provide a means for adding signals output from two adjacent light-receiving regions to generate a single output in each field. However, Applicant maintains that one skilled in the art would not have been so motivated to make the proposed combination as the mode described in *Yamaguchi et al.* is low resolution while the mode in *Harada et al.* is high resolution.

In response to this argument, the Examiner asserts as follows:

Although the Yamaguchi reference discloses a thinning operation for readout and the Harada reference discloses a method where all of the pixels of an imaging array are read out, this

does not prevent the two references from being combined. The Harada reference is cited for the purpose of disclosing a method of producing pixel information of one line from pixel information of two adjoining lines (interlacing) and the Yamaguchi reference discloses applying gate pulses for transferring only pixel information of pairs to two adjoining lines with intervals of a plurality of lines.

Based upon these assertions, the Examiner maintains his rejection under 35 U.S.C. §103. However, Applicant respectfully submits that these comments fail to address Applicant's argument and maintains that there is no motivation to combine the *Yamaguchi et al.* and *Harada et al.* references as suggested by the Examiner.

The portion of the reference the Examiner is relying upon in support of his rejection is based upon an interlaced VGA signal, which energizes pixels in an alternate manner. *Yamaguchi et al.* reads out two lines of pixels at a time in order to ensure that one energized or charged row of pixels is read out when the thinning takes place without complicating the signal processing circuit. Because only one line of pixels is energized when pairs are read out, there is no reason to average the two lines as taught by *Harada et al.* Support for this argument can be found in the disclosure of *Yamaguchi et al.* in col. 12, lines 39-60. Further, *Yamaguchi et al.* specifically supports this argument by teaching “a situation such that a color sequence in the vertical direction which is specified by the array of the color filters is broken is prevented.” As such, Applicant maintains that one skilled in the art would not be motivated to combine the averaging of *Harada et al.* with the teachings of *Yamaguchi et al.* It is respectfully submitted that claim 4 is not obvious over the references as cited.

Yamaguchi et al. Teaches Away from the Purported Combination

The Examiner has made clear error in failing to consider all of the teachings of cited references, including those teachings that teach away from the purported combination.

Yamaguchi et al. seeks to provide a device that obtains “an image of a good resolution” (col. 17, lines 25-26). In combining the teachings of the references, as suggested by the Examiner, *Yamaguchi et al.*

al. would effectively be processing one energized or charged row of pixels with one non-energized or non-charged row of pixels. By doing this, signal quality would be reduced. This appears contrary to the purpose of *Yamaguchi et al.* and to the express teachings of *Yamaguchi et al.* as noted above.

As such, Applicant maintains that as *Yamaguchi et al.* teaches away from the purported combination, one skilled in the art would not be motivated to combine the teachings of the references as suggested by the Examiner.

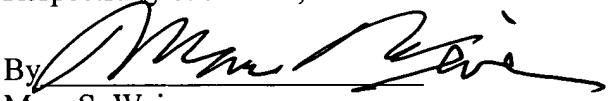
Claims 5-10 are allowable for the reasons noted above with regard to claim 4 at least based upon their dependency on claim 4. Further, Claims 11-12, 16, and 23-24 include elements similar to those discussed above with regard to claim 4 and thus these claims, together with claims dependent thereon, are allowable for the reasons noted above with regard to claim 4.

Conclusion

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: February 24, 2006

Respectfully submitted,

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